

Amendments to the Specification

Please replace the first paragraph on page 1 with:

--This application is a continuation of U.S. Application Serial Number 09/951,603, filed September 13, 2001, and entitled "Wave Shock Absorber System."--

Amend the paragraph beginning on page 14, line 1 in the Brief Description of the Drawings as follows:

Fig. 6 illustrates the ~~impact losses~~ energy losses from wave impact of the prior art wide bow barge type hull.

Please insert these two new paragraphs directly after the description of Fig. 8 on page 14, line 10 of the Brief Description of the Drawings as follows:

--Fig. 9 illustrates the shock absorber with its low impact losses, low displacement and mixing of air with the wave in the diffuser to further reduce suction on the hull surfaces. Also shown is a cavity between the hull and the diffuser to equalize uneven wave pressure. Also shown is a cap on the cavity and the diffuser to prevent upward spillage of the fluids.--

--Fig. 10 illustrates the shock absorber with its low impact losses, low displacement and mixing of air with the wave in the diffuser to reduce impact and reduce suction on hull surfaces. Also shown is an extension of the diffuser underneath the hull to channel liquid and gas mixture under the hull.--

Amend the paragraphs beginning on page 14, line 12 in the Detailed Description of the Preferred Embodiments as follows:

Referring to Fig. 1 - Fig. 11 10.

Fig. 1 shows a plan view of the prior art of typical displacement bow 1 made pointed to reduce impact zone 17.

Fig. 2 shows a plan view of the diffuser bow 2 having multiple plates 3 and channels 4 providing a diffuser structure. These channels provide for mixing air with the wave in the diffuser to provide a compressible fluid to reduce impact and reduce suction between the hull and the water and providing reduced impact zones 18 extending over a wide bow.

Fig. 3 shows a plan view of the prior art of a typical displacement hull 5 with inherent low buoyancy, low stability, and limited usable space.

Fig. 4 shows a plan view of the diffuser hull 6 with inherent high buoyancy, high stability, and maximum usable space.

Fig. 5 shows an elevation of a typical displacement hull 5 showing the wave 7 being parted on impact and showing the displacement 8 of the hull below the waterline 9 that must displace in own weight in water to move through the water.

Fig. 6 shows an elevation of a typical barge hull 10 illustrating the low displacement 11 below the waterline 9 but shows the high impact losses caused by the wave 7 impacting the flat bow of the barge 12.

Fig. 7 shows an elevation of a diffuser hull 6 with its low displacement 11 below the waterline 9 providing the low displacement advantages of the barge hull 10, but with the reduced impact of the diffuser bow 2. Also shown is the diffused water mixed with air 12 13 that reduces impact due to the mixing of gas and liquid to form a compressible fluid and illustrates the secondary effect of the aerated liquid reducing suction between the hull and the water.

Fig. 8 shows an isometric view of the preferred embodiment showing the diffuser bow 14, side 15 and hull bottom 16.

Please insert these two new paragraphs directly after the description of Fig. 8 on page 16, line 5 of the Detailed Description of the Preferred Embodiments as follows:

--Fig. 9 shows an elevation of a diffuser hull 6 with its low displacement 11 below the waterline 9 providing the low displacement advantages of the barge hull 10, but with the reduced impact of the diffuser bow 2. Also shown is the diffused water mixed with air 13 that reduces impact due to the mixing of gas and liquid to form a compressible fluid and illustrates the secondary effect of the aerated liquid 13 reducing suction between the hull and the water. Also shown is a cavity 17 between the hull 10 and the diffuser bow 2 that further mixes the diffuser water 13 with air and equalizes any uneven pressure due to variation in wave position and

intensity across the diffuser. Also shown is a cap 18 on the diffuser to prevent spilling of the liquid 7 or gas or mixture of both 13, upwards.--

--Fig. 10 shows an elevation of a diffuser hull 6 with its low displacement 11 below the waterline 9 providing the low displacement advantages of the barge hull 10, but with the reduced impact of the diffuser bow 2. Also shown is the diffuser water mixed with air 13 that reduces impact due to the mixing of gas and liquid to form a compressible fluid and illustrates the secondary effect of the aerated fluid 13 reducing suction between the hull and the water. Also shown is an extension of the diffuser channel 19 of the diffuser 2 located below the hull line 11 to contain the aerated fluid 13 under the hull.--